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Japanese Barnyard Millet

A New Forage for the Coast Section

By

A. E. Engbretson

Superintendent, John Jacob Astor Experiment Station.

Fig. 1. Summer Growth of Japanese Barnyard Millet on Astoria Station.

CORVALLIS, OREGON

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A New Forage for the Coast Section

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History. Japanese Barnyard Millet was first tried at the John Jacob Astor Branch Experiment Station at Astoria, Oregon, in 1917. The experiment was successful from the beginning. Four years ago it was recommended by this Station as a valuable addition to our forage crops for the Coast sections. The county agents of the Coast counties have been using it as one of their demonstration crops for three years. In some sections of the Coast it is being established as one of the regularly planted forage crops.

Value. The Station recommends it for one purpose only and that is as a soiling or green feed crop. It fills the critical gap in the soiling crop program between the spring planted oats or oats and peas and the early fall turnips. This period is between August 10 and September 30. As all dairymen know, production decreases more rapidly at this period than at any other time of the year, due to the hot weather and a shortage of good pasture. Japanese Barnyard Millet is the only high-yielding crop that this Station has tried and found usable during August and September. It is the best late summer green feed, taking the place of corn, which has not proved suited to most Coast conditions. In some of the more sheltered valleys corn may be of some value for later use. Japanese Barnyard Millet is better than corn for the cool sections of the Coast and since it does not ripen it gives a long feeding period.

Another valuable characteristic of this crop is its heavy yield of a palatable soiling crop. If the crop is properly planted and conditions are favorable it will give an average yield of 12 to 15 tons per acre. On rich soil with plenty of moisture a yield of 20 tons per acre is not uncommon.

From observation at this Station the crop has never been known to lodge, notwithstanding the heavy rains and winds that occur in September.

Seed-bed. This crop is very exacting in its requirements. Every new crop has some peculiarity that must be taken care of before it grows to best advantage. With millet, the seed-bed is the one most important factor. The soil should be worked down into a fine seed-bed. Late plowing of sod or a field of clods will not grow millet satisfactorily. Early plowing and disking with later harrowing makes a firm seed-bed quite free from weeds. Due to the fact that the crop starts slowly the land on which it is planted must be fairly free from weeds. Quick growing annual weeds such as spurry are the greatest enemies this crop has. After millet once starts growing rapidly it will compete with any weed. On weedy land the early June planting is recommended. The early working makes plant food available for a quick growth.

Fertilizer. For a good crop the soil should be rich enough to grow a 25-ton yield of roots. Good bottom-land or tide-land with some manure produces the best yield. The land can not be too rich. It is better to concentrate the fertilizer on a smaller area and do it exactly right than to try to plant it on a large scale on poor land. On upland the crop should be manured at the rate of 15 tons per acre. As far as we know at present, manure is the *one* fertilizer necessary.

Seed and seeding. Seed may be secured from the leading seed companies. It is planted at the rate of 20 to 25 pounds an acre on the poorer land and 25 to 30 pounds on the good bottom-lands or tide-lands. It may be broadcast and harrowed in, or it may be sowed with a grain drill.

Fig. 2. Harvesting first crop on Elliot Farm. Estimated yield 20 tons per acre.

Many of the failures of millet have been traced to seeding. The crop will *not* grow if *planted too deep.* On the other hand with late planting there is danger of the surface soil not containing enough moisture to grow the crop. *The proper depth is approximately from one-half inch to three-quarters inch in depth.* Rolling before sowing is good on very loose soils.

The time of sowing is another important matter. The crop does not thrive in cold, wet weather. Its early growth in a cold soil is slow. *For the southern coast counties, seeding should usually be done after May 1. For the northern coast counties, after May 10.* On warm bottom-lands or slopes in early seasons planting may be a week or ten days earlier unless the land is quite weedy.

The crop may be planted as late as June 15 provided there is sufficient moisture to start the crop. The millet does not begin to grow rapidly and never looks promising until warm weather comes.

Cutting and feeding. The crop may be cut and fed when two and one-half to three feet high. At this time it is a mass of leaves and stalks. Do not wait for it to head or get its full growth. Only the

earlier planting blooms and seldom matures seeds. The earlier planting will grow a second crop equal to the first if the frost does not come too early. In the south coast on warm bottom-lands where early planting is made, three cuttings are obtained in warm seasons.

Millet will not stand frost and should be fed before the first fall frosts occur.

The crop does not have the feeding value of green alfalfa or vetch and oats but maintains the production fairly well. It is the best crop that we know of at the present time for this period of the year.

The leaves and stalks are coarse but palatable and are relished by all livestock. Unless fed heavily the cows will consume the entire stalk. This crop is different from the other grain millets and should not be confused with them. Thirty to forty pounds will maintain production fairly well. Sixty to eighty pounds is a heavy feeding. Due to the heavy weight of the crop the tendency is to feed heavier than forty pounds.

Cows producing over 30 pounds of fat a month should have grain in addition to green feed.